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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,422	03/12/2001	Jim Sundqvist	45687-00050 P5263US00/A	1824
27045	7590	06/06/2005	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			ZHONG, CHAD	
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/804,422

Applicant(s)

SUNDQVIST, JIM

Examiner

Chad Zhong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### FINAL ACTION

1. This action is responsive to communications: Amendment, filed on 11/16/2004. This action has been made final.

Claims 1-33 are presented for examination. In amendment B, filed on 11/16/2004:

claims 1-33 are amended.

Applicant's remarks filed 11/16/2004 have been considered but are found not persuasive in view at the new grounds at rejection necessitated by Applicant's amendment.

2. It is noted that although the present application does contain line numbers in specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering. Although this is not required by the MPEP, it is recommended by the examiner to place line numbers for the ease of reference and future amendments.

#### *Claim Rejections - 35 USC § 112, second paragraph*

Claims 6-7, 17, 18, 28-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The claim language in the following claims is not clearly understood:

i. As per claims 6, 17, 28 it is not clearly understood what is meant by "internet layer", there is no such layer in the standard OSI layers, for the purpose of examination, the Examiner will consider TCP or transport layer

ii. As per claims 7, 18, 29, it is not clearly understood what is meant by "window size is overwritten when the acknowledgment packet is in an physical layer". Specifically, window sizes is a transport layer or TCP protocol parameter, there is no window sizes performing any functionality in the physical layer. There is encapsulation

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on the physical layer and the packet is passed through, but to perform an override while in physical layer does not comply with the standards. For purpose of examination, the Examiner will consider "TCP or transport layer" in place of the "physical layer".

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 8-10, 12-14, 19-21, 23-25, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaid et al (hereinafter Vaid), US 6,078,953, in view of "FloodGate – 1 Architecture and Administration Version 1.0" (hereinafter FloodGate), 1997.

5. As per claim 1, Vaid teaches a method for dynamically (Col. 8, lines 40-45, wherein the network policies will dynamically control the individual flows) controlling individual data flows comprising data packets to a terminal in a communications system, said data flows being carried over at least one communications connection with a predetermined bandwidth and with use of at least one protocol which has parameters, said method including the steps of:

providing an viewable interface to display at least one or more of the individual data flows to different applications on the terminal (Fig 2; Col. 9, lines 45-65);

storing information regarding the priority in a memory of the terminal (Col. 13, lines 65 – Col. 14, lines 5, the priority information are a part of the policy, and the policies are located on the terminal);

controlling, through manipulation of at least one protocol parameter, a bandwidth proportion of an available bandwidth used by the individual data flows based on said stored information (Col. 13, lines 60 – Col. 14, lines 5; Col. 8, lines 10-30).

Vaid does not explicitly teaches

providing a viewable interface to accept a priority for each of the individual data flows;

Although Vaid discloses a guideline for developing traffic policies and sample applications requiring different policies, Vaid is silent as the origination of such traffic policies.

In a similar, bandwidth control system, FloodGate uses network policies to influence bandwidth allocation for data flows on a computer network. Specifically, the administrator enters the policies to be utilized by the network terminals (pg 3, lines 4-8), furthermore, higher priority packets are processed before the lower priority packets and indicated by the scheduling tree. Note the scheduler is working according to the policy assigned by the user.

Hence, it would have been obvious to the person ordinary skilled in the art to combine teachings of Vaid and FloodGate so that the policies regarding to bandwidth priority can be set up by an administrative user, providing additional control so that network administrator can monitor network performance in real time.

6. As per claim 2, Vaid teaches a method according to claim 1, wherein the controlling step involves restricting a bandwidth proportion used by at least one first flow to at least one first application in order to give a larger bandwidth proportion to at least one second flow serving at least one second application (Col. 13, lines 65 – Col. 14, lines 5).

7. As per claim 3, Vaid teaches a method according to claim 1, wherein the storing step includes assigning a port number to each of the individual data flows (Col. 6, lines 20-30, wherein the port number is assigned to each data flows inherently, TCP, FTP, HTTP all need port numbers in order to communicate).

storing said information about the priority for the respective individual data flows in a database in the terminal (Fig 2, Col. 13, lines 55-67, the priorities are part of the terminal).

8. As per claims 8-10, claims 8-10 are rejected for the same reasons as rejection to claim 1-3 above.

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9. As per claims 12-14, Claims 12-14 are rejected for the same reasons as rejection to claims 1-3 above respectively.

10. As per claims 19-21, Claims 19-21 are rejected for the same reasons as rejection to claims 1-3 above respectively.

11. As per claims 23-25, Claims 23-25 are rejected for the same reasons as rejection to claims 1-3, above respectively.

12. As per claims 30-32, Claims 30-32 are rejected for the same reasons as rejection to claims 1-3 above respectively.

13. Claims 4-7, 11, 15-18, 22, 26-29, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaid et al (hereinafter Vaid), US 6,078,953, in view of "FloodGate – 1 Architecture and Administration Version 1.0" (hereinafter FloodGate), 1997.

14. As per claim 4, Vaid teaches a method according to claim 1, wherein the step of controlling the bandwidth proportion used by individual data flows to the applications on the terminal includes:

investigating if a data packet to be sent from the terminal is an acknowledgment packet (Col. 18, lines 15-17);

if the data packet is an acknowledgment packet, retrieving the stored information on the user's preferences associated with the data flow to the terminal with which the acknowledgment packet is associated;

determining by comparing a window size of the acknowledgment packet with retrieved information on the user's preferences to decide if the window size should be reduced, said window size defining a maximum amount of unacknowledged data packets that a receiver of the acknowledgment

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packet should be allowed to send to the terminal on the data flow with which the acknowledgment packet is associated; and

reducing the window size, based on said determining, by overwriting the window size with a lower value before sending said acknowledgment packet to the receiver (Col. 18, lines 10-45, wherein the 'window size' is sent from the receiver to the sender side in the ACK packet so that the sender's transmission rate can be adjusted accordingly, i.e. increase or decrease based on the receiver's bandwidth capacity).

15. As per claim 5, Vaid teaches a method according to claim 4, wherein a window size is overwritten when the acknowledgment packet is in a transport layer (Col. 18, lines 10-25).

16. As per claim 6, Vaid teaches a method according to claim 4, wherein a window size is overwritten when the acknowledgment packet is in an Internet layer. (Col. 18, lines 10-25).

17. As per claim 7, Vaid teaches a method according to claim 4, wherein the step of reducing a window size comprises overwriting a window size when the acknowledgment packet is in a physical layer (Col. 18, lines 10-25).

25. As per claim 11, 15, 22, 26, 33, claims 11, 15, 22, 26, 33 are rejected for the same reasons as rejection to claim 4 above.

26. As per claim 16, 27 claims 16, 27 are rejected for the same reasons as rejection to claim 5 above.

27. As per claim 17, 28 claims 17, 28 are rejected for the same reasons as rejection to claim 6 above.

28. As per claim 18, 29 claims 18, 29 are rejected for the same reasons as rejection to claim 7 above.

*Claim Rejections - 35 USC § 102*

29. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

30. Claims 1, 8, 12, 19, 23, 30 rejected under 35 U.S.C. 102(b) as being anticipated by "FloodGate-1 Architecture and Administration, Version 1.0" (hereinafter FloodGate), 1997.

31. As per claim 1, FloodGate teaches a method for dynamically (pg 2) controlling individual data flows comprising data packets to a terminal in a communications system (pg 3, lines 9-18), said data flows being carried over at least one communications connection with a predetermined bandwidth and with use of at least one protocol which has parameters, said method including the steps of:

providing an viewable interface to display at least one or more of the individual data flows to different applications on the terminal (pg 6, lines 7-15);

providing a viewable interface to accept a priority for each of the individual data flows; (pg 3, lines 4-8)

storing information regarding the priority in a memory of the terminal (pg 4, lines 1-3, the priority information are a part of the policy, and the policies are located on the terminal);

controlling, through manipulation of at least one protocol parameter, a bandwidth proportion of an available bandwidth used by the individual data flows based on said stored information (pg 4, lines 16-23).

32. As per claims 8, 12, 19, 23, 30, claims 8, 12, 19, 23, 30 is rejected for the same reasons as rejection to claim 1 above.



*Conclusion*

33. **THIS ACTION IS MADE FINAL.** Applicant is reined of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to "Method And Arrangement For Control Of Non Real-Time Application Flows In A Network Communications System".

- i. "BTU: A communication Benchmark Proposal" – Maly et al. June 1995
- ii. US 5193151 Jain
- iii. "Decoupling Control From Data for TCP Congestion Control" Shie-Yuan Wang September 1999.

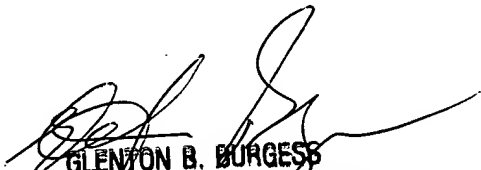
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CZ  
May 25, 2005

  
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